#### (19) World Intellectual Property Organization International Bureau



### 

## (43) International Publication Date 28 July 2005 (28.07.2005)

#### PCT

# (10) International Publication Number WO 2005/069064 A1

(51) International Patent Classification<sup>7</sup>: G09G 3/20, 3/36

G02F 1/133,

(21) International Application Number:

PCT/JP2005/000944

(22) International Filing Date: 19 January 2005 (19.01.2005)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

2004-011207

19 January 2004 (19.01.2004) Л

- (71) Applicant (for all designated States except US): SHARP KABUSHIKI KAISHA [JP/JP]; 22-22, Nagaike-cho, Abeno-ku, Osaka-shi, Osaka, 5458522 (JP).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): MIYACHI, Koichi. KOIDE, Takako.
- (74) Agent: HARAKENZO WORLD PATENT & TRADE-MARK; Daiwa Minamimorimachi Building, 2-6, Tenjinbashi 2-chome Kita, Kita-ku, Osaka-shi, Osaka, 5300041 (JP).

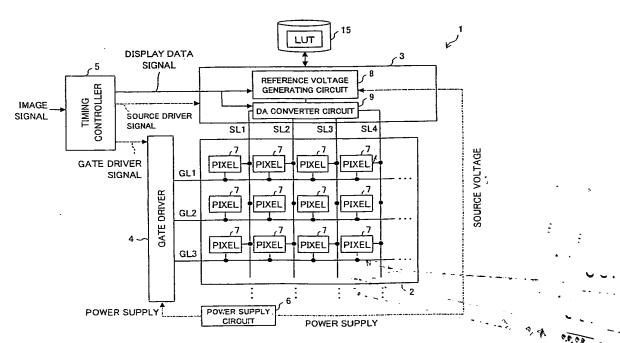
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG).

#### Published:

with international search report

[Continued on next page]

(54) Title: DISPLAY APPARATUS AND DISPLAY ELEMENT



(57) Abstract: RGB colors are displayed with the same gradation by applying different voltages to display elements in pixels (7). This is in turn done by, for example, either producing a different reference voltage for each RGB color in a reference voltage generating circuit (8) or making reference to a LUT stored in a memory section (15). Hence, color discrepancies in a display element can be effectively limited.

## WO 2005/069064 A1



 before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.